Dart Aerospace Ltd. Thursday, 4/5/2007 11:59:29 AM Kim Johnston User. **Process Sheet** : BEARING ASSEMBLY **Drawing Name** : CU-DAR001 Dart Helicopters Services Customer ---Job Nümber : 10716 Estimate Number : D3121241 **Part Number** P.O. Number · D3121 REV D **Drawing Number** : 4/5/2007 S.O. No. : This issue ; N/A : NC Project Number Prsht Rev. : D : MACHINED PARTS : // Type **Drawing Revision** First Issue : 30321 Material Previous Run **Due Date** : 4/30/2007 Qty: Written By Checked & Approved By : Est Rev: 4 04.02.18 New issue KJ/DS Comment **Additional Product** Job Number: Description: lot Seq. #: ar Machine Or Operation: DELRIN ROUND BAR 1.25" MDELRINR12500 21772 1:030 1 - 1 f Comment: Qty.: 0.0546 f(s)/Unit Total: 1.0920 f(s) Material: Ø1.25 Delrin Rod montes ((M-DELRIN-R1.2500)Identify as Q3121-25 HARDING HARDINGE CNC LATHE SMALL 2.0 37.95 Comment: HARDINGE CNOLATHE SMALL 1-Turn D3121-25 Cap as per Folio FA387 2-Deburr INSPECT PARTS AS THEY COME OFF MACHINE 3.0, 100 Comment: INSPECT PARTS AS THEY COME OFF MACHINE SECOND CHECK 4.0 QC8 Comment: SECOND CHECK D312123 5.0

Comment: Qty.:

20.0000 Each(s)

Pick: **Qty Part Number**

1.0000 Each(s)/Unit Total: B30520 +21 pieces

Description Batch

1 D3121-23

Bearing <u>B 31759</u> +50 picus

D3121-25

B 30450

and 07/04/30

Each

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES							
DATE	STEP	PRO	CEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No):	PAR #:	Fault Category:	NCR	t: Yes	No DQ	A: 🗲	Date: _c	57164130
					QA:	N/C Close	d:	Date: _	

NCR:		,	WORK ORDI	ER NON-CONFORMAN	CE (NCR)	₹)				
		Description of NC	Corrective Action Section B			Verification	A	T		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector		
						•				

NOTE: Date & initial all entries

Thursday, 4/5/2007 11:59:29 AM Date: User: Kim Johnston **Process Sheet** Drawing Name: BEARING ASSEMBLY Customer: CU-DAR001 Dart Helicopters Services Part Number: D3121241 Job Number: 31700 Job Number: Seq. #: Description: Machine Or Operation: SMALL & MEDIUM FAB RESOURCE 1 SMALL FAB 1 6.0 Comment: SMALL & MEDIUM FAB RESOURCE 1 07/04/31 1-Press D3121-23 Bearing into D3121-25 Cap as per Dwg D3121 71 INSPECT WORK TO CURRENT STEP 7.0 de la Sec. 1 Comment: INSPECT WORK TO CURRENT STEP TC PACKAGING RESOURCE #1 PACKAGING 1 8:0,5 100 ella. Comment: PACKAGING RESOURCE #1 Identify and Stock 71 Location: FINAL INSPECTION/W/O RELEASE QC21 9.0 100 Comment: FINAL INSPECTION/W/O RELEASE 1 8-430 Job Completion gikgaan oo s C 365.

Dart Aerospace Ltd

W/O:		WORK ORDE					
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		•					
Part No	•	PAR #· Fault Category:	NCR: Yes	No DO	۸٠	Date:	

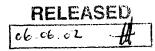
QA: N/C Closed: ____ Date: ____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE		TED Description of NC	Corrective Action Section B			Verification	Approval		
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector	
						,			

NOTE: Date & initial all entries



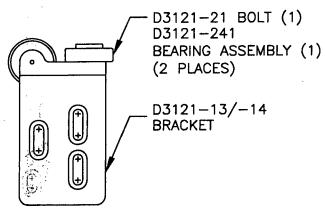
DESIG	n #	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	KED	APPROVED ,	DRAWING NO. REV. D
	Ms.k	#	D3121 SHEET 1 OF 10
DATE			TITLE SCALE
06.0	05.17		BRACKET ASSEMBLY 1:2
Α		02.04.15	NEW ISSUE
В		03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
С		04.02.17	ADD CLEARANCE; USE -241 BEARING
D		06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000



	D3121-21 D3121-24 BEARING A	
\exists	D3121-11	BRACKET

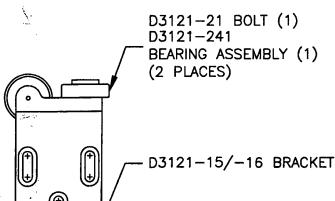
D3121-041 BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-33)



D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-37/-38)



D3121-045 (SHOWN) / D3121-046 (OPPOSITE)

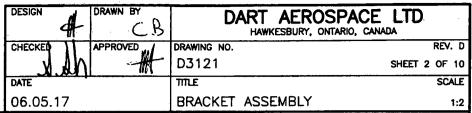
BRACKET ASSEMBLY (REPLACES PREMIER P/N B30 SHOP COPY REPLACES PREMIER P/N B30 REPLACED 35/-36)

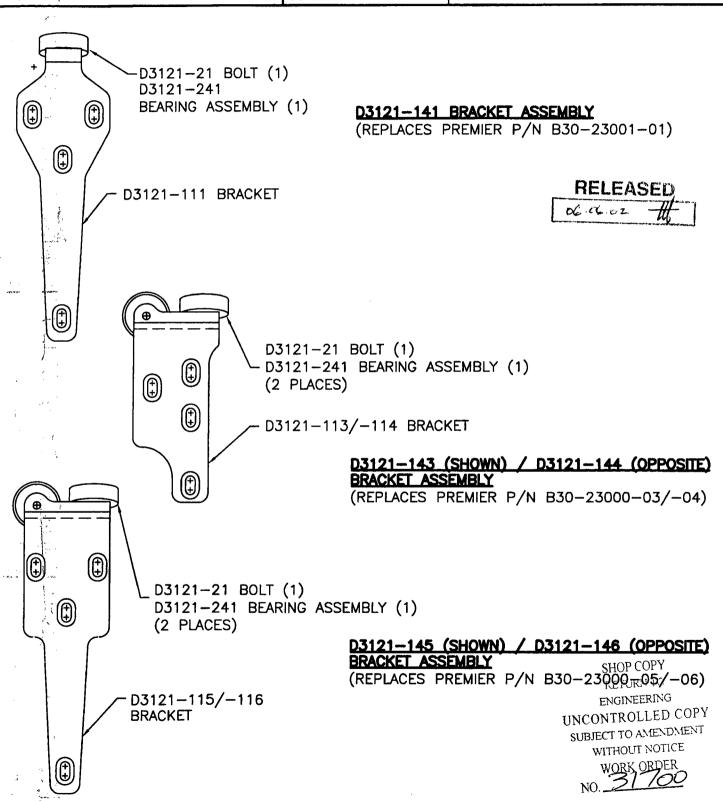
ENGINEERING

UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE

WORK ORDER



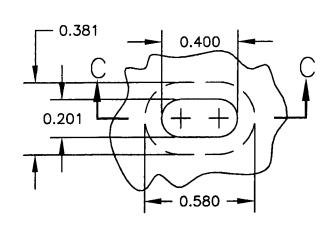


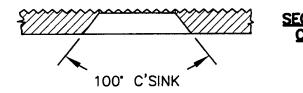




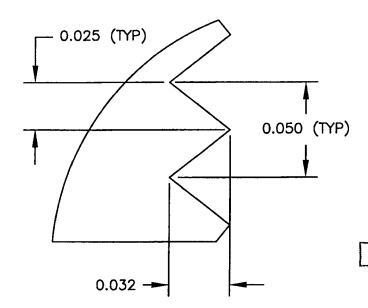
DESIGN	DRAWN BY	DART AEROSPACE HAWKESBURY, ONTARIO, CANA	
CHECKED	APPROVED .//	DRAWING NO.	REV. D
Malk. I	THE THE	D3121	SHEET 3 OF 10
DATE		TITLE	SCALE
06.05.17		BRACKET ASSEMBLY	1:1







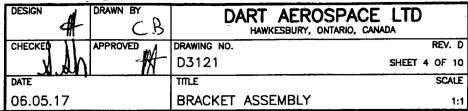
DETAIL B: RIDGE DETAIL PARTIAL SECTION **SCALE 1:20**

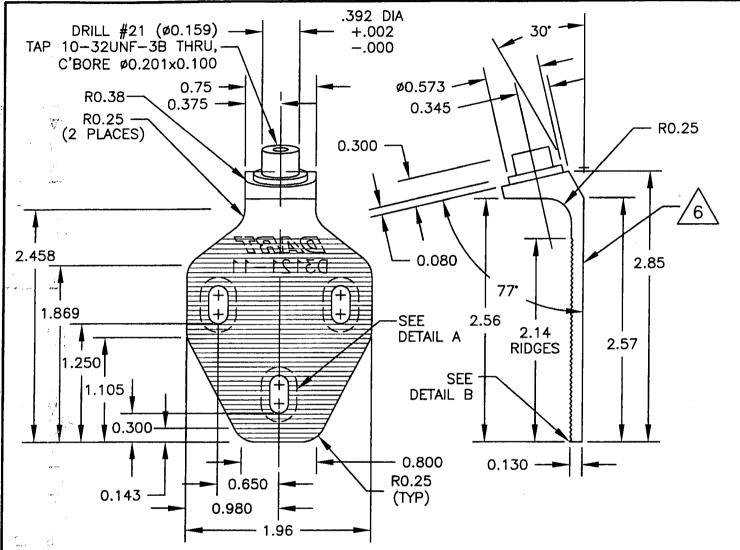


SHOP COPY RETURN TO **ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER 31700

RELEASED do do 02 #







SHOP COPY RETURN TO **ENGINEERING** UNCONTROLLED COPY

SUBJECT TO AMENDMENT WITHOUT NOTICE

WORK ORDER

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi

3) ALL DIMENSIONS ARE IN INCHES

D3121-11 BRACKET

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

5) ENGRAVE DART P/N & LOGO AS SHOWN

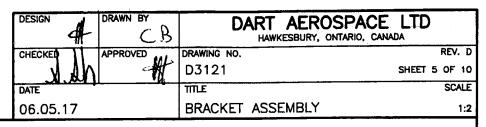
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

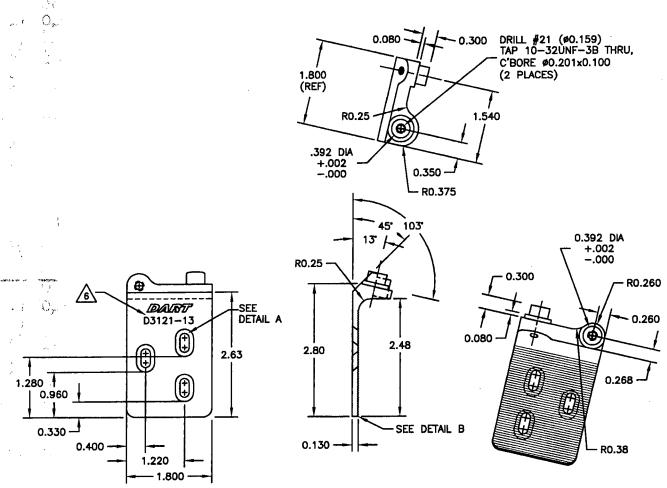
MIN YIELD TENSILE = 100 ksi

RELEASED

06.06.02 C







D3121-13 BRACKET (SHOWN) D3121-14 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) NCONTROLLED COPY
MIN III TIMATE TENSILE STRENGTH MIN ULTIMATE TENSILE STRENGTH = 150 ksi

MIN YIELD TENSILE STRENGTH = 100 ksi

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

5) ENGRAVE DART P/N & LOGO AS SHOWN

6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

SHOP COPY RETURN TO ENGINEERING

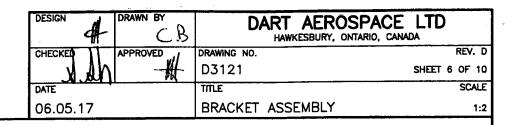
WITHOUT NOTICE

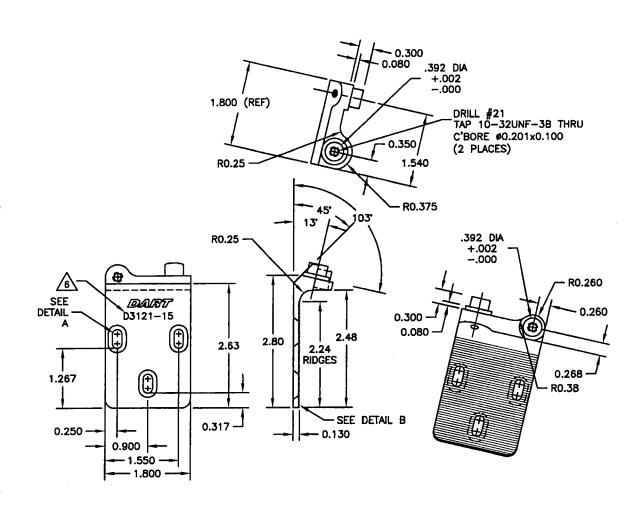
WORK ORDER NO. 31700

RELEASED

06 06.02







D3121-15 BRACKET (SHOWN) D3121-16 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

5) ENGRAVE DART P/N AND LOGO AS SHOWN

6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

SHOP COPY RETURN TO ENGINEERING

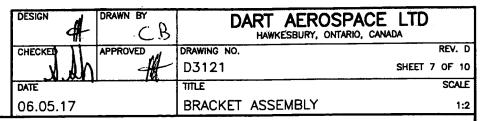
UNCONTROLLED COPY SUBJECT TO AMENDMENT

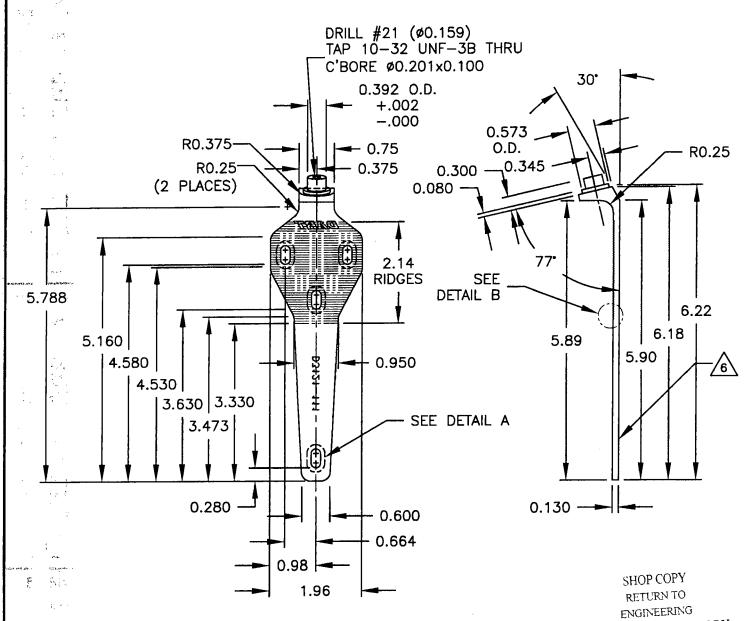
WITHOUT NOTICE

WORK ORDER NO. 31700

RELEASED 06 06 02







D3121-111 BRACKET

1) REPLACES PREMIER P/N B32-23001-11

2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)

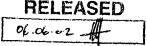
MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

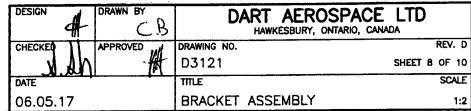
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED

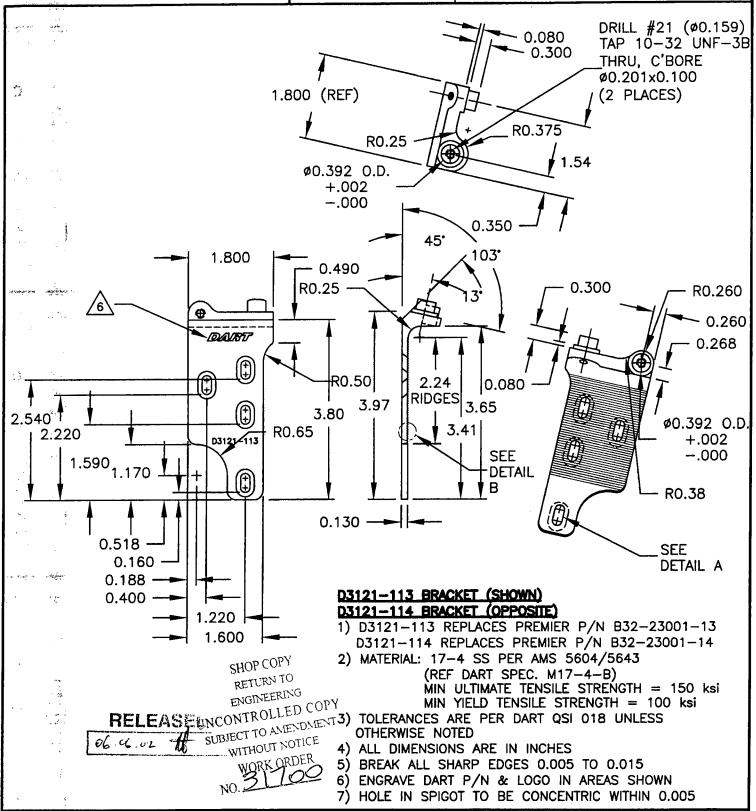
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER



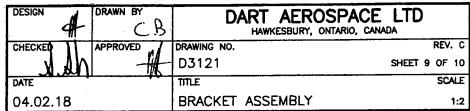


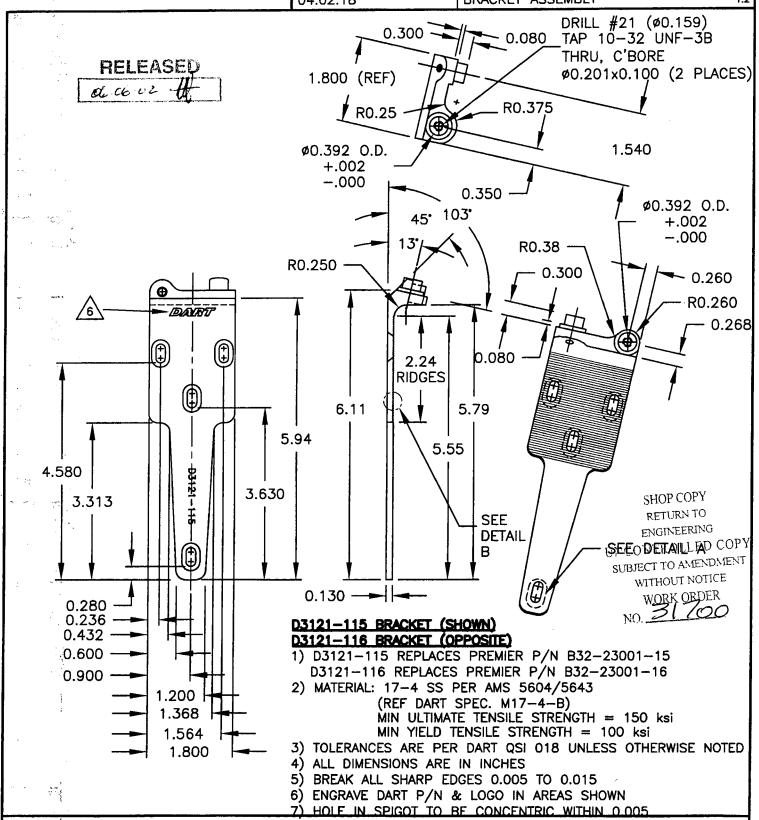




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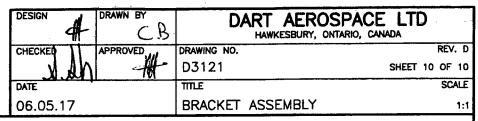


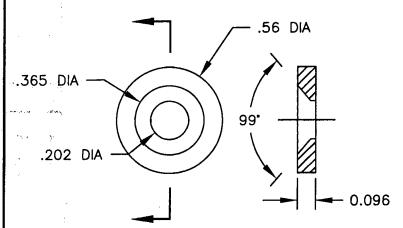




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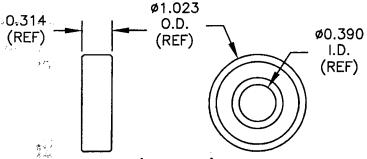






D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-19 BEARING (SCALE 1:1)

Br. L

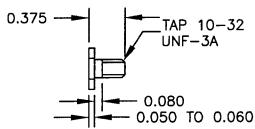
- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM 1) MATERIAL: DELRIN ROD, Ø1.25 FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



D3121-23 BEARING (SCALE 1:1)

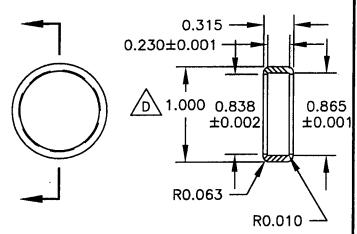
1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ

ALL DIMENSIONS ARE IN INCHES



D3121-21 BOLT (SCALE 1:1)

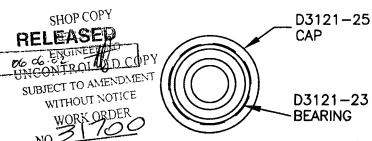
- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-25 CAP (SCALE 1:1)

(REF DART SPEC. M-DELRIN-R1.250)

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEBLY (SCALE 1:1)